

## SYSTEM FOR NORMALIZING SPECTRA

Abstract

A method and system for normalizing optical spectra using a non-uniform segment normalization. A spectrum is obtained and is represented as a function of wavelength as an amplitude at each of a plurality of wavelengths. At least one segment of the spectrum is selected, each selected segment being bounded by an upper wavelength and a lower wavelength. A  
5 normalization factor is computed as the sum of the areas for each of the selected segments. The spectrum is normalized by dividing at least one amplitude of the spectrum by the normalization factor. Segments can be selected with different wavelength ranges, that is, segments can be non-uniform. Test specimens can be categorized based on an analysis of normalized spectra. In particular, the specimen to be tested can be human cervical tissue, and the state of health of the tissue can be determined.